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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/889,167	07/11/2001	Kenichiro Suetsugu	43888-112	7945

20277 7590 01/15/2004  
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WASHINGTON, DC 20005-3096

EXAMINER

PHAN, THIEM D

ART UNIT	PAPER NUMBER
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3729

DATE MAILED: 01/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application N .	Applicant(s)	
	09/889,167	SUETSUGU ET AL.	
	Examiner	Art Unit	
	Tim Phan	3729	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 30 October 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 11-13 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10, 14-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>3</u> | 6) <input type="checkbox"/> Other: _____                                    |

### DETAILED ACTION

1. The amendment filed in Paper No. 10 (filed 10/30/03) has been fully considered and made of record.

#### *Election/Restrictions*

2. Claims 1-8 which are generic in the Restriction mailed on or about 2nd April 2003 are rejoined to Group I, claims 9 and 10, which are elected in Paper No. 7. Claims 11-13 of Group II and III are rescinded as the Restriction on or about April 2<sup>nd</sup> 2003 are carefully reviewed and is held to be proper. Accordingly, Claims 11-13 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected Groups, there being no allowable generic or linking claim.

The Restriction filed on or about 2<sup>nd</sup> April 2003 is hereby **made Final**.

Applicants are required to cancel these nonelected claims (11-13) or take other appropriate action.

An Office Action on the merits of claims 1-10 and additional claims 15-20 now follows.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 9, 10 and 15-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Asao et al (JP07-326834) hereinafter '834.

**As applied to claims 9 and 10**, the '834 teaches a method of recycling printed circuit board by reading and displaying the codes on the printed circuit board (Cf. Patent Abstracts of Japan, Purpose, lines 4-6), comprising:

- identifying various wastes on the articles through the displayed bar code with “absolute magnitude” classification (Cf. Detailed Description, Paragraph 7, line 1; Paragraph 8, line 2) and,
- individually separating parts having “absolute magnitude” of the heavy metal such as lead (Cf. Detailed Description, Paragraph 8, line 4) or “absolute magnitude” 0 which is judged as the level of free lead to be used to fill or reclaim land (Cf. Detailed Description, Paragraph 8, lines 5 and 6).

**As applied to claim 15**, the '834 teaches that the identification information is the bar code 2 with recognizable "absolute magnitude" markings from 0 to 5 (Cf. Detailed Description, Paragraph 8; Paragraph 9, Table 1).

**As applied to claim 16**, the '834 teaches that the lead containing article is recycled for recovery (Cf. Detailed Description, Paragraph 5, lines 1-4) instead of being released into the environment.

**As applied to claims 17-20**, the '834 teaches that the lead free article with soldered parts such as a populated circuit board marked with "absolute magnitude 0" is disposed in a dumping ground or land reclaim (Cf. Detailed Description, Paragraph 8, line 6).

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-8 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over the '834.

**As applied to claims 1-5**, the '834 teaches an article or printed circuit board imprinted with a bar code 2 (Cf. Detailed Description, Paragraph 8, line 1) that identifies an absolute magnitude number (Cf. Detailed Description, Paragraph 9, Table 1) from 5 (heavily lead doped) to 0 which is judged to be lead free for land burying (Cf. Detailed Description, Paragraph 8, line 6).

It would be obvious to one of ordinary skill in the art at the time the invention was made, if indeed the '834 fails to expressly teach, a lead free article with identification information. NB Table 1 teaches that the printed circuit board has ID information with respect to having lead in the material. As applied to claim 5, Applicants are referred to paragraph 8 and Table 1 of the machine translation of the '834.

**As applied to claims 6 and 7**, the '834 teaches a bar code (Cf. Detailed Description, Paragraph 8, line 1) imprinted on the printed circuit board, except for detailing the soldered parts, the type of solder and material used onboard.

It would be obvious to one of ordinary skill in the art at the time the invention was made to detail the soldered parts, the type of solder and material used onboard since it was known in the art that the bar code carries information about different level of lead through the absolute magnitude number 0 to 5 (Cf. Detailed Description, Paragraph 8, lines 4-6; Paragraph 9, Table 1) and the code no. 8 which shows all parts currently used (Cf. Detailed Description, Paragraph 19, lines 7-10).

**As applied to claim 8**, the '834 teaches a bar code (Cf. Detailed Description, Paragraph 8, line 1) imprinted on the printed circuit board, except for having the bar code or identification information imprinted on the housing which accommodates the printed circuit board or article.

It would be obvious to one of ordinary skill in the art at the time the invention was made to have the bar code or identification information imprinted on the housing which accommodates the printed circuit board or article, since it was known in the art that having an imprinted information on an item for different level of lead onboard is needed for recovery or recycling (Cf. Detailed Description, Paragraph 8, lines 4-6; Paragraph 9, Table 1).

**As applied to claim 14**, the '834 teaches that the identification information is the bar code 2 with recognizable "absolute magnitude" markings from 0 to 5 (Cf. Detailed Description, Paragraph 8; Paragraph 9, Table 1).

### ***Response to Arguments***

7. Applicants' arguments filed 10/30/03 have been fully considered but they are not persuasive for the following reasons:

Applicants recite *inter alia* "... article ... lead free article ..." (Cf. Claims 9, 10). The Patent Office's position, as stated in the preceding Action, was and continues to be that since the

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'834 teaches that an article such as a printed circuit board with a bar code 2 imprinted of "absolute magnitude" number 0 (Cf. Detailed Description, Paragraph 8; Paragraph 9, Table 1) refers to a lead free item that can be crushed and dumped for reclaiming land without harming the environment.

8. With the remainder of the claims rejected under either 35 USC 102 or 35 USC 103, they are rejected as carefully articulated in the current Office Action and in Responses to Remarks in paragraph 5 above.

### *Conclusion*

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tim Phan whose telephone number is 703-605-0707. The examiner can normally be reached on M - F, 9AM - 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on 703-308-1789. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9302 for regular communications and 703-872-9303 for After Final communications.


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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1148.



Tim Phan  
Examiner  
Art Unit 3729

tp  
January 9, 2004

  
**CARL J. ARBES**  
**PRIMARY EXAMINER**